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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,719	03/09/2006	Volker Seipel	588-1050	6791
23280	7590	07/27/2007		
DAVIDSON, DAVIDSON & KAPPEL, LLC 485 SEVENTH AVENUE, 14TH FLOOR NEW YORK, NY 10018			EXAMINER LAZO, THOMAS E	
			ART UNIT 3745	PAPER NUMBER
			MAIL DATE 07/27/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

88

Office Action Summary	Application No.		Applicant(s)	
	10/538,719		SEIPEL ET AL.	
	Examiner		Art Unit	
	Thomas E. Lazo		3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30-37 is/are rejected.
- 7) ☒ Claim(s) 38-48 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/13/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30-34, 36, and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugiura et al. (2001/0022134). Sugiura et al. discloses an axial piston machine with a piston having a substantially cylindrical piston body 504, and a brace 502 configured to receive a tilting plate and piston shoes slidably disposed on the tilting plate, wherein the brace 502 includes spherical cap-shaped depressions 114 for receiving the piston shoes, the depressions 114 are located on a first side of the brace 502 adjacent the piston body 504 and on a second side of the piston brace 502 opposite the first side, wherein the substantially cylindrical piston body 504 and the brace 502 are separate parts assembled together to form the piston, the axial piston machine includes an air-conditioner compressor for a motor vehicle, the brace 502 includes a strip of sheet metal, and the piston body 504 includes a part of sheet metal, the brace 502 is connectable to the cylindrical piston body 504, the brace 502 includes an opening, the spherical cap-shaped depressions 114 are produced during a forming process of the brace 502, the brace 502 and the piston body 504 are joined together by welding, and the piston includes a substantially air tight hollow space between the brace 502 and the piston body 504. The patentability of the sheet

metal, the brace, and the piston do not depend on the deep drawing process, punching, and laser or resistance welding processes. See MPEP 2113 Product-by-Process Claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiura et al., as applied to claim 30 above, in view of Ishizuka (4,379,425). Sugiura et al. discloses all of the claimed subject matter further including that the brace and the piston body are formed of aluminum and that they can be formed of other materials. Sugiura et al. does not disclose that the brace and the piston body are formed of steel.

Ishizuka teaches for an axial piston machine with a piston having a substantially cylindrical piston body, and a brace configured to receive a tilting plate and piston shoes slidably disposed on the tilting plate and that the brace and the piston body are formed of steel for the purposes of providing a light weight and high strength hollow piston. See Ishizuka col. 4, lines 53-66.

Since Sugiura et al. and Ishizuka are both axial piston machines with hollow pistons, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the hollow piston of Sugiura et al., based on the teachings of Ishizuka, to have

Art Unit: 3745

the brace and the piston body formed of steel for the purposes of providing a light weight and high strength hollow piston.

Allowable Subject Matter

Claims 38-48 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior Art

Prior art made of record but not relied upon is considered pertinent to Applicant's disclosure and consists of eight patents.

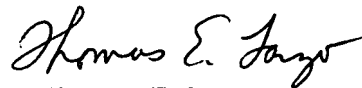
Kato et al. '236, Kato et al. '284, Sugiura et al. '149, Sugiura et al. '417, Kato et al. '705, Kato et al. 340, Fukushima et al, and Kato et al. '941 are cited to show axial piston machines with pistons having bodies and braces.

Contact Information

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thomas Lazo whose telephone number is (571) 272-4818. The examiner can normally be reached on Monday-Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Edward Look, can be reached on (571) 272-4820. The fax phone number for this Group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thomas E. Lazo
Primary Examiner
Art Unit 3745
July 18, 2007